tell him to drain the irrigation system? Indeed not unless you want to take a chance of having a damaged irrigation system. Only with self-determination through PMA will the assistant make absolutely sure that when finished, the irrigation system will be completely dry.

Success does not come only through education, practical experience, and the desire to be somebody. Doctor Norman Vincent Peale says — and I quote "Whatever the mind can conceive, and believe, it can achieve". To be successful in achieving accomplishments we must have self-determination through PMA, faith in ourselves, learn from defeat, have enthusiasm. disciplined attention, organized initiative, and clear thinking. These are but a few, but important factors which lead to desired achievement and success.

I am greatful to the dedicated turf men who have shared their knowledge for the betterment of our profession. As long as we have PAM we will each day continue to learn, to strive, and to accomplish with determination the height of our individual goal. How right O. J. Noer was when he said "the future will be bright for those who accept its challenges". With PMA, positive mental attitude, we can accomplish endless successful projects and continually go forward for the betterment of our employers, your fellow superintendents, superintendents associations, and mainly ourselves.

I sincerely appreciate the opportunity to have been able to come to the Chicago area to train as a future superintendent. It is certainly inspiring to see some of the outstanding golf courses. I hope that I will someday have the ability to maintain a golf course as well as some of those that I have seen. I would like to say thanks to the men who have helped me along thus far, and also thanks to the men who asked me to speak here today, and I hope I may have the privilege again.

Tom Burrous, Glencoe Golf Club

HELMINTHOSPORIUM LEAF SPOT CONTROL OBTAINED AT CHICAGO GOLF CLUB, WHEATON, ILLINOIS, IN 1961

M. P. Britton and Donald Gerber

Mr. Donald Gerber, Superintendent, Chicago Golf Club, observed during the second week of April 1961 that Helminthosporium leaf spot (*Helminthosporium Vagans*) was building up on Kentucky bluegrass in the fairways of the course.

On April 21, all fairways were sprayed with Phenyl Mercury at a rate of two quarts 10% Phenyl Mercury in 75 gallons of water per acre. A check area approximately 30 feet by 50 feet was left in fairway No. 18. On May 4, 1961, visual examination of the sprayed fairways and upsprayed check plot showed excellent control. Three samples were taken from the unsprayed check and three from the adjacent sprayed portion of the fairway. Each sample was obtained in the following manner: Handsful of grass leaves were pulled at random and placed in plastic bags. The samples were taken to Champaign and placed in a refrigerator until data from each sample could be obtained. Data was taken in the following manner for each sample: Approximately 200 leaves from each sample were examined at random. Leaves having one or more leaf spots were recorded as diseased. Leaves having no spots were recorded as healthy. No records were taken on sheath or crown infection (Table 1).

TABLE 1. Helminthosporium leaf spot prevalence in sprayed and unsprayed area of fairway. On May 4, 1961*

SAMPLE NO.	NO. OF LEAVES EHIBITING		TOTAL LEAVES EXHIBITING		% LEAVES EXHIBITING LEAF SPOTS
	ONE OR MORE LEAF SPOTS	NO LEAF SPOTS	ONE OR MORE LEAF SPOTS	NO LEAF SPOTS	
1 UNSPRAYED	174	41			
2 UNSPRAYED	146	54	425	190	69.1
3 UNSPRAYED	105	95			
1 SPRAYED	20	180			
2 SPRAYED	16	184	52	568	8.2
3 SPRAYED	16	204			

*Leaf spot prevalence for all samples were recorded on May 6, 1961.

The fairway, including the unsprayed check, had been mowed four times during the interval between spraying and collection of samples (April 21 - May 4). Mowing height was approximately 1 - 1/16 inch. Rainfall during the period at Chicago O'Hare Airport and Aurora are given in Table 2 (1).

TABLE 2. Weather data at Aurora and Chicago O'Hare Airport

Weather Station	Rainfall (in inches)		
	April 22-29	April 30-May 5	Total
Aurora	——	——	
O'Hare	1.38	Trace	

Mr. Gerber estimated that about one inch of precipitation occured during the period April 21 - May 4, all in one rainy period about three days after spraying.

Discussion:

The unsprayed plot of grass was evident from 100 feet away due to the brown discoloration due to the heavy leaf spot infection. The adjacent sprayed fair-

way was uniformly dark green; leaf spot infection was evident only upon close examination of the plants. All fairways on the course were in a similar condition. Visual checks made of these fairways revealed heavy leaf spot development extending up to the sprayed fairway grass.

The one inch of rain within three or four days after spraying may have washed much of the fungicide off of the leaf blades. Also, leaf blades were removed by the four mowings. It is highly probable that very little leaf tissue protected by fungicide remained one week after spraying. Therefore, the high degree of control obtained (88% reduction in leaf spot, eg. 8.2%/69.1% = 11.9% .·. 100%—12% = 88% reduction) occured during the first week following spraying. It is probable that the fungicide killed the fungus spores present on the grass leaves in the sprayed area and the fungus growing on the dead leaf material on the soil surface — thus reducing the potential for spore production and leaf spot development.

1. Illinois Weekly Weather — Crop Bulletin, U.S. D.A. Statistical Reporting Service, Springfield, Illinois.